

ANNOTATED CHECKLIST OF THE VASCULAR FLORA OF THE LOBLOLLY UNIT
OF THE BIG THICKET NATIONAL PRESERVE, LIBERTY COUNTY, TEXAS

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ABSTRACT

An annotated, vouchered checklist is provided of the vascular plant taxa of the 222 hectare Loblolly Unit of the Big Thicket National Preserve in Liberty County, Texas. Documented for the unit are 305 taxa including 34 (11%) exotics

RESUMEN

Se aporta un catálogo comentado y respaldado con testigos de los taxa de plantas vasculares de las 222 hectáreas de la unidad Loblolly de la Reserva Big Thicket National en el condado de Liberty, Texas. Se documentan para la unidad 305 taxa incluyendo 34 (11%) exóticas.

INTRODUCTION

This paper is the 6th part of an inventory, based on available voucher specimens, of the vascular flora of the Big Thicket National Preserve in southeastern Texas. In 5 previous papers, we provided annotated checklists of the Hickory Creek, Turkey Creek, Big Sandy Creek, Lance Rosier, and Beech Creek units (MacRoberts et al. 2002; Brown et al. 2005, 2006a, 2006b, 2008). At this time, the Menard Creek Unit has been inventoried, and a paper is anticipated in the near future. Here, we provide an annotated checklist of the Loblolly Unit.

SITE AND METHODS

The Big Thicket is located in the West Gulf Coastal Plain in southeastern Texas (see Diggs et al. 2006 for literature and description). Peacock (1994) reported 12 units for the Big Thicket National Preserve. Since then the Big Sandy Creek Corridor (1,798 hectares), the Canyonlands (350 hectares), and Village Creek Corridor (2,059 hectares) have been added. The addition of these 3 units has added 4,207 hectares to the 34,000 reported by Peacock in 1994. However, Deanna Boensch, Big Thicket fire ecologist (pers. comm.), indicated the total hectares are now 40,088. The units range from 222 to 10,000 hectares and are scattered over 7 Texas counties. The Loblolly Unit consists of 222 hectares in Liberty County (Fig. 1). It is located on the Beaumont formation on Aldine-Aris/Gyron-Aldine, Vamont, and Waller soils, and is topographically flat, and poorly drained with very slow permeability (Deshotels 1978; Aronow 1981; Shelby et al. 1992; Griffith 1996). Elevation is about 30 meters. After heavy rain falls, standing water is present in the flatwoods for extended periods of time. The Unit consists of basically 1 plant community complex: Floodplain and/or Flatland Hardwood Forest, a common association in the area (Ajilvsgi 1979; Marks & Harcombe 1981; Bezanson 2000).

It has been suggested that a century ago the Loblolly Unit was prairie; but, because of fire suppression and other human activities, it has become Flatland Hardwood Forest (Watson 1979; Peacock 1994; Diggs et

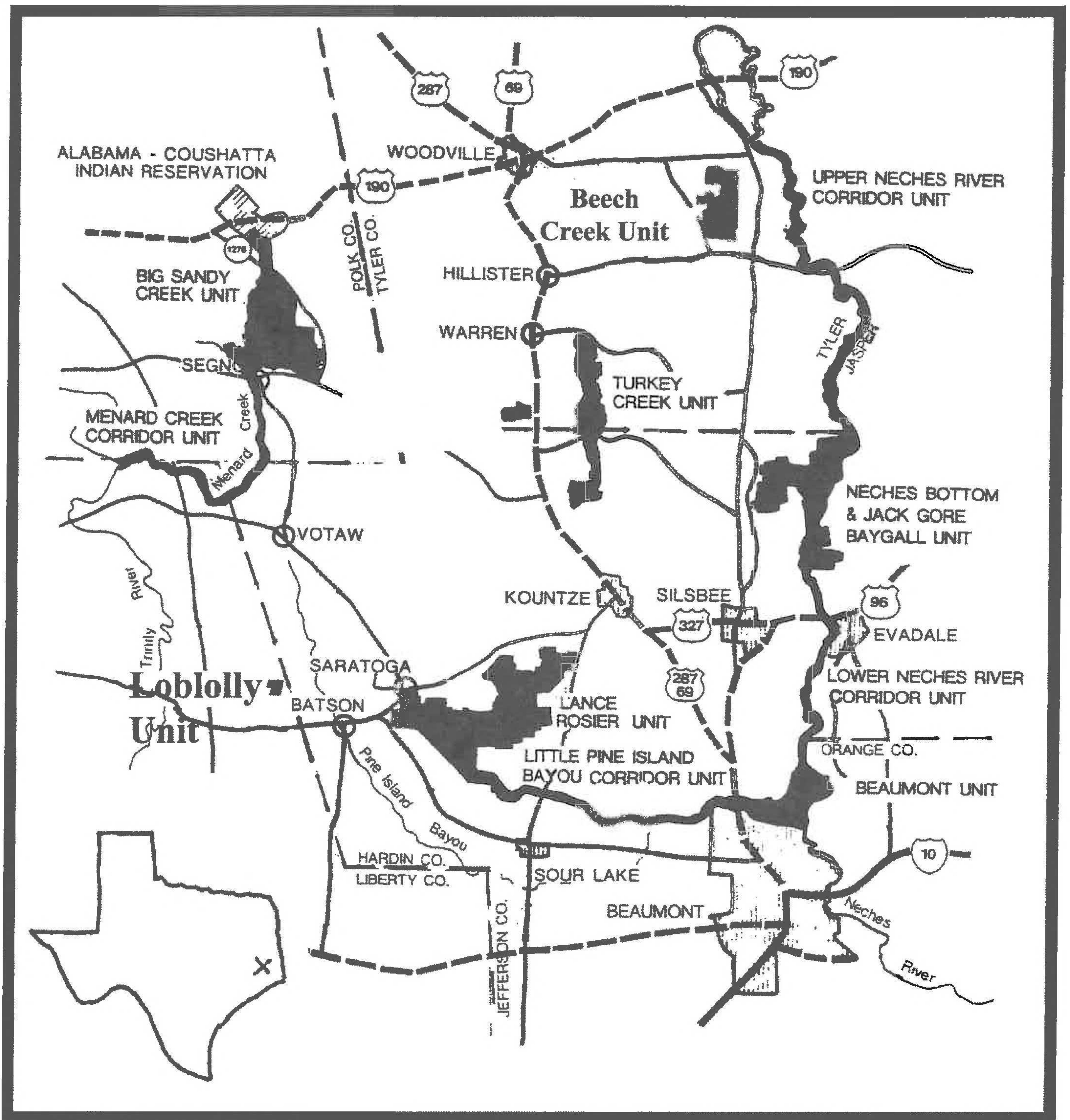


FIG. 1. Location of the Loblolly Unit, Big Thicket National Preserve, Texas.

al. 2006). However, others have questioned this interpretation maintaining that it has always been Flatland Hardwood Forest although it may have been cleared in the past (Harcombe & Marks 1979). Our study of the Loblolly Unit found no prairie species or any remnant prairie habitat. Therefore, the flora is clearly a Flatland Hardwood Forest (Harcombe & Marks 1979; Marks & Harcombe 1981).

Like all units of the Big Thicket National Preserve, the Loblolly Unit has not previously been the subject of a detailed floristic inventory.

Because our purpose is to produce a list of taxa known to occur on the Loblolly Unit, a vouchered specimen was considered to be the only evidence acceptable for inclusion in the list. A total of 471 herbarium specimens form the data for this report. All specimens have been annotated by Larry Brown.

Larry Brown collected 277 specimens during 11 field days from 5 August 1978 to 14 June 2008. The

MacRoberts' collected 127 specimens during 5 field days from 30 July 2007 to 18 May 2008. Sandra Elsik and Warren Pruess collected 35 specimens during 2007. Susan Walker collected 23 specimens on 22 October 2007. Geraldine Watson collected 9 specimens over several years in the late 1970s and early 1980s.

In most cases, nomenclature follows Jones et al. (1997); Kartesz (1999); and Diggs et al. (2006). In cases of multiple collections, no more than 4 are listed for each taxon.

RESULTS

The following is an annotated list of the Loblolly Unit taxa. Abbreviations used are given below.

GW = Geraldine Watson. Her specimens are at TAES.

LB = Larry Brown. His specimens with collection numbers above 29,000 are at TAES and those few with numbers below 29,000 are at SBSC.

MM = Barbara and Michael MacRoberts. Their specimens are at TAES.

SEWP = Sandra Elsik and Warren Pruess. Their specimens are at TAES.

SH = Shawn Harper, grandson of LB.

SW = Susan Walker. Her specimens are at TAES.

* = exotic

+ = see note at end of list.

Acanthaceae

- Hygrophila lacustris* (Schlecht. & Cham.) Nees, LB 32266
Justicia ovata (Walter) Lindau var. *lanceolata* (Chapm.) R.W. Long, LB 32200, 29281, 29298; MM 7930
Ruellia caroliniensis (J.F. Gmel.) Steud., LB 29318; MM 8231; LBSH 33675

Aceraceae

- Acer rubrum* L., SEWP 3044; MM 7906, 8094

Amaryllidaceae

- Hymenocallis liriosme* (Raf.) Shinnery, LBSH 33311

Anacardiaceae

- Rhus copallinum* L., LB 32264
Toxicodendron radicans (L.) Kuntze, LB 32254

Apiaceae

- Centella erecta* (L.f.) Fernald, MM 8012; LB 32315
Chaerophyllum tainturieri Hook. var. *dasycarpum* Hook. ex S. Watson, SEWP 3044
Chaerophyllum tainturieri Hook. var. *tainturieri*, LBSH 33302
 **Cyclospermum leptophyllum* (Pers.) Sprague ex Britton & P. Wilson, LB 29314
Cynosciadium digitatum DC., LB 32202
Eryngium prostratum Nutt. ex DC., LB 32187
Hydrocotyle verticillata Thunb., LB 32193, 29323; MM 7918
Limnoscium pumilum (Engelm. & A. Gray) Mathias & Constance, LBSH 33486
Ptilimnium capillaceum (Michx.) Raf., LB 32205
Sanicula canadensis L., LB 29289

Apocynaceae

- Trachelospermum difforme* (Walter) A. Gray, LB 32412

Aquifoliaceae

- Ilex decidua* Walter, LBSH 33298; SW 139
Ilex opaca Aiton, LB 32278
Ilex vomitoria Aiton, LB 32251

Araceae

- Arisaema triphyllum* (L.) Schott., MM 8004

Araliaceae

- Aralia spinosa* L., LB 32306; MM 7895

Arecaceae

- Sabal minor* (Jacq.) Pers., LB 32415

Aristolochiaceae

- Aristolochia serpentaria* L., MM 7990

Asclepiadaceae

- Asclepias perennis* Walter, LB 32211, 29285; MM 7923; SW 151

Asteraceae

- Acmella oppositifolia* (Lam.) Jansen, LB 32206; MM 7935
Ambrosia trifida L., LB 32431; MM 7975
Baccharis halimifolia L., MM 7998
Conoclinium coelestinum (L.) DC., LB 32269
Coreopsis tinctoria Nutt., LB 32261; MM 7926
Eclipta prostrata (L.) L., MM 7934, 8010; LB 5849
Elephantopus carolinianus Raeusch., LB 32425; MM 7968
Elephantopus tomentosus L., LB 32414; MM 8011
Erechtites hieraciifolia (L.) Raf., LB 32274, 32413; MM 8070
Erigeron philadelphicus L., SEWP 3034
Eupatorium capillifolium (Lam.) Small, MM 7999
 +*Eupatorium semiserratum* DC., GW 2159
Eupatorium serotinum Michx., LB 32284
Euthamia leptoccephala (Torr. & A. Gray) Greene ex Porter & Britton, LB 32290
Gamochaeta pennsylvanicum (Willd.) Cabrera, SEWP 3030
Gamochaeta purpurea (L.) Cabrera, LBSH 33305, 33488
Helenium amarum (Raf.) Rock var. *amarum*, LB 32265; MM 7902
Krigia cespitosa (Raf.) K.L. Chambers var. *cespitosa*, LBSH 33292
Mikania scandens (L.) Willd., LBSH 33666

Pluchea camphorata (L.) DC., LB 32426; MM 8002
Pluchea foetida (L.) DC., MM 8006
Pyrrhopappus carolinianus (Walter) DC., LB 32436
Pyrrhopappus pauciflorus (D. Don) DC., LB 29309a
Solidago altissima L., MM 7976
Solidago rugosa Mill. var. *asper* (Aiton) Fernald, LB 32293;
 MM 8087
 **Sonchus asper* (L.) Hill, LBSH 33309
 **Sonchus oleraceus* L., MM 8232
Symphyotrichum lateriflorum (L.) Love & Love, MM 8099
Symphyotrichum racemosum (Elliott) Nesom, LB 32270
Vernonia missurica Raf., MM 7908
 **Youngia japonica* (L.) DC., LBSH 33308

Berberidaceae

Podophyllum peltatum L., LBSH 33507

Betulaceae

Carpinus caroliniana Walter, SW 140
Ostrya virginiana (Mill.) K. Koch, LB 32424

Bignoniaceae

Bignonia capreolata L., LB 32252, 29317
Campsis radicans (L.) Seem. ex Bureau, LB 32443
Catalpa bignonioides Walter, LB 32442

Blechnaceae

Woodwardia areolata (L.) T. Moore, MM 7983; LBSH 33484

Boraginaceae

**Heliotropium indicum* L., MM 8100
Heliotropium procumbens Mill., LB 29312, 5852
Myosotis macrosperma Engelm., LBSH 33297

Brassicaceae

Rorippa sessiliflora (Nutt.) Hitchc., LBSH 33284

Bromeliaceae

Tillandsia usneoides (L.) L., SW 137

Buddlejaceae

Polypremum procumbens L., LB 32437

Campanulaceae

Lobelia cardinalis L., MM 8009; LB 14856

Caprifoliaceae

**Lonicera japonica* Thunb., SEWP 3028
Sambucus nigra L. subsp. *canadensis* (L.) Bollii, LB 32255;
 MM 7899
Viburnum dentatum L., LB 29305

Caryophyllaceae

**Cerastium glomeratum* Thrill., SEWP 3042
 **Stellaria media* (L.) Vill., SEWP 3041

Commelinaceae

Commelina diffusa Burm f., MM 8077
Commelina virginica L., LB 32272; MM 7925

Convolvulaceae

Dichondra carolinensis Michx., SEWP 3027; MM 7896
Ipomoea cordatotriloba Dennst., MM 7904
Ipomoea lacunosa L., MM 8007

Cornaceae

Cornus florida L., SEWP 3005; SW 145; LBSH 33672
Cornus foemina Mill., LB 29320, 29304; SW 138
Nyssa biflora Walter, LB 32304; LBSH 33301
Nyssa sylvatica Marsh., LB 29306; MM 8085; LBSH 33506

Crassulaceae

Penthorum sedoides L., LB 32433, 14866; MM 7916

Cucurbitaceae

Cayaponia quinqueloba (Raf.) Shinnars, SW 149

Cyperaceae

Carex abscondita Mack., LBSH 33504
Carex blanda Dewey, MM 8233
Carex complanata Torr. & Hook., LB 32248
Carex caroliniana Schwein., LBSH 33293
Carex cherokeensis Schwein., LBSH 33289
Carex crus-corvi Shutlew. ex Kunze, LB 32189; SEWP 3022
Carex debilis Michx., LB 32246
Carex flaccosperma Dewey, LBSH 33487
Carex frankii Kunth, LB 32191, 29319; MM 7927, 8230
Carex intumescens Rudge, LBSH 33485
Carex jooi L. H. Bailey, LB 32277, 3724; MM 7996
Carex louisianica Bailey, LB 29296, 29300, 32419; MM 7997
Carex reniformis (L.H. Bailey) Small, LBSH 33287
Carex triangularis Boeck., LBSH 33285, 33481; LB 29324
Carex tribuloides Wahlenb. var. *sangamonensis* Clokey, LB
 32186, 32195; LBSH 33502, 33680
Cyperus acuminatus Torr. & Hook. ex Torr., LBSH 33492
 **Cyperus entrerianus* Bockeler, LB 32242; LBSH 33479; SW
 159
Cyperus erythrorhizos Muhl., MM 8005 b
Cyperus ochraceus Vahl, MM 7977
Cyperus pseudovegetus Steud., LB 32283, 32310
Cyperus virens Michx., LB 32247
Eleocharis engelmannii Steud., LBSH 33668
Eleocharis microcarpa Torr., MM 8022
Eleocharis montana (Kunth) Roem. & Schult., LB 32285
Eleocharis montevidensis Kunth, LB 32267; SEWP 3024
 **Fimbristylis miliacea* (L.) Vahl, MM 8089
Isolepis carinata Hook. & Arn. ex Torr., LBSH 33299
 +*Kyllinga pumila* Michx., LB 32258, 17501a; MM 7987, 8080
Rhynchospora caduca Elliott, LB 32286, 32307, 32196, 32192
Rhynchospora corniculata (Lam.) A. Gray; LB 32245; MM
 7922
Rhynchospora glomerata (L.) Vahl, LB 32301, 32317; LBSH
 33678
Rhynchospora inexpansa (Michx.) Vahl, LB 32201; LBSH
 33674
Rhynchospora mixta Britton, LB 29295; LBSH 33480
Scirpus cyperinus L., LB 32212; SW 132
Scleria oligantha Michx., LB 32423
Scleria triglomerata Michx., LB 29286

Dennstaedtiaceae

Pteridium aquilinum (L.) Kuhn var. *pseudocaudatum* (Clute)
 A. Heller, LB 32416

Dryopteridaceae

- Onoclea sensibilis* L., LB 32289, 29288; MM 7984
Polystichum acrostichoides (Michx.) Schott, MM 8095; LBSH 33505

Ebenaceae

- Diospyros virginiana* L., LB 29284

Ericaceae

- Vaccinium arboreum* Marshall, LB 29294

Euphorbiaceae

- Acalypha gracilens* A. Gray, LB 32308
Phyllanthus carolinensis Walter, LB 32411, 33132
 **Phyllanthus urinaria* L., MM 7917
 **Triadica sebiferum* (L.) Small, LB 32268; MM 7905

Fabaceae

- **Albizia julibrissin* Durazz., MM 8109
Centrosema virginianum (L.) Benth., GW 2156
Desmodium glabellum (Michx.) DC., GW 2157; MM 7992; LBSH 33494
 **Medicago lupulina* L., MM 8228
 **Trifolium campestre* Schreb., LBSH 33291
 **Trifolium repens* L., LBSH 33283
Vicia ludoviciana Nutt. subsp. *ludoviciana*, LBSH 33290

Fagaceae

- Quercus alba* L., MM 8101
Quercus falcata Michx., MM 8103, 8093
Quercus laurifolia Michx., LB 32275a
Quercus michauxii Nutt., LB 29283; MM 7911
Quercus nigra L., MM 8084, 8092; LB 32275
Quercus phellos L., LB 32250, 29290
Quercus shumardii Buckley, SW 135
 +*Quercus velutina* Lam., MM 8083, 8090; SW 144, 141; LBSH 33677

Gentianaceae

- **Centaurium pulchellum* (Sw.) Druce, MM 8229

Geraniaceae

- Geranium carolinianum* L., SEWP 3045

Haloragaceae

- Proserpinaca palustris* L. var. *crebra* Fernald & Griscom, LB 32276; LBSH 33671

Hammamelidaceae

- Liquidambar styraciflua* L., LB 29291

Hydrophyllaceae

- Hydrolea uniflora* Raf., SW 153

Hypericaceae

- Hypericum hypericoides* (L.) Crantz, LB 29315; MM 7915
Hypericum mutilum L., LB 32299; MM 8087
Triadenum walteri (J. G. Gmel.) Gleason, LB 29293; MM 7978

Hypoxidaceae

- Hypoxis curtissii* Rose, MM 8237
Hypoxis wrightii (Baker) Brackett, LBSH 33287

Iridaceae

- Sisyrinchium rosulatum* E.P. Bicknell, LB 29311; SEWP 3026; MM 8236

Juglandaceae

- Carya aquatica* (Michx. f.) Nutt., SW 136
Carya glabra (Mill.) Sweet, LB 32292; MM 8087; LBSH 33496; SW 134

Juncaceae

- Juncus acuminatus* Michx., LB 32313
Juncus coriaceus Mack., LB 32243; SEWP 3043
Juncus dichotomus Elliott, LB 32267a
Juncus diffusissimus Buckley, LBSH 33490
Juncus effusus L., LB 31938; SEWP 3025
Juncus tenuis Willd., LBSH 33493
Juncus validus Coville, LB 32244

Lamiaceae

- Hedeoma hispida* Pursh, LBSH 33495
Hyptis alata (Raf.) Shinnery, MM 8003
Lycopus rubellus Moench., MM 8000
Lycopus virginicus L., GW 2086; MM 8072
Micromeria brownei (Sw.) Benth. var. *pilosiuscula* A. Gray, LB32207; SEWP 3037
Prunella vulgaris L., LB 29308
Salvia lyrata L., SEWP 3040
Scutellaria integrifolia L., LB 32287
Stachys tenuifolia Willd., LB 32190, 32260; MM 7921; LBSH 33669

Lauraceae

- Sassafras albidum* (Nutt.) Nees, SEWP 3014; MM 7901, 7993

Liliaceae

- Nothoscordum bivalve* (L.) Britton, SEWP 3010

Linaceae

- Linum striatum* Walter, LB 32439

Loganiaceae

- Gelsemium sempervirens* (L.) Aiton f., SEWP 3015
Mitreola petiolata (J. F. Gmel.) Torr. & A. Gray, LB 32188; MM 7931; SW 155

Lygodiaceae

- **Lygodium japonicum* (Thunb. ex Murray) Sw., LB 29316; SEWP 3016; MM 7909

Lythraceae

- **Cuphea carthagenensis* (Jacq.) J. F. Macbr., LB 32305, 5593; MM 7928

Magnoliaceae

- Magnolia grandiflora* L., SW 146

Malvaceae

- Modiola caroliniana* (L.) G. Don, SEWP 3038
Sida rhombifolia L., LB 32294; MM 7970

Melastomataceae

- Rhexia mariana* L. var. *mariana*, LB 32295

Moraceae

- Morus rubra* L., MM 7903

Myricaceae

- Morella cerifera* (L.) Small, SEWP 3011

Oleaceae

- Chionanthus virginicus* L., MM 8086
Fraxinus americana L., LB 29303
Fraxinus pennsylvanica Marsh., LB 32309, 32432; MM 8107;
 SW 156

Onagraceae

- Ludwigia decurrens* Walter, MM 8001
Ludwigia glandulosa Walter, LB 32210
Ludwigia hirtella Raf., LB 32438
Ludwigia octovalvis (Jacq.) P. H. Raven; MM 7933, 7979
Ludwigia palustris (L.) Elliott, LB 32194
Ludwigia sphaerocarpon Elliott, GW 2399
Oenothera speciosa Nutt., SEWP 3035

Ophioglossaceae

- Botrychium biternatum* (Savogny) Underwood, MM 7995,
 8104

Oxalidaceae

- Oxalis corniculata* L. var. *wrightii* (A. Gray) B.L. Turner, SEWP
 3031; LBSH 33304

Passifloraceae

- Passiflora incarnata* L., LB 32298; MM 8098
Passiflora lutea L., LB 32253

Pinaceae

- Pinus taeda* L., LB 32291, 32319

Plantaginaceae

- **Plantago major* L., LB 32184; MM 7973, 8234
Plantago rhodosperma Decne., LBSH 33310
Plantago virginica L., MM 8238

Platanaceae

- Platanus occidentalis* L., LB 32420; SW 133

Poaceae

- Agrostis hyemalis* (Walter) Britton, Sterns & Poggenb., LBSH
 33499
Axonopus fissifolius (Raddi) Kuhlmann, LB 32314, 32303a;
 GW 2177
Axonopus furcatus (Flugge) A. S. Hitchc., LB 32427
 **Briza minor* L., LBSH 33288
 **Bromus japonicus* Thunb. ex Murray, LB 32181
Chasmanthium laxum (L.) H.O. Yates, GW 2314
Dichanthelium acuminatum (Sw.) Gould & C.A. Clark var.
acuminatum, LB 29301a, 32320
Dichanthelium acuminatum (Sw.) Gould & C.A. Clark var. *lin-*
dheimeri (Nash) Gould & C.A. Clark, LBSH 33489
Dichanthelium commutatum (Schult.) Gould subsp. *commu-*
tatum, LB 29287, 32422; LBSH 33679
Dichanthelium dichotomum (L.) Gould subsp. *dichotomum*,
 LB 29301; MM 7988
Dichanthelium dichotomum (L.) Gould subsp. *microcarpon*
 (Muhl. ex Elliott) Freckmann & Lelong, LB 32197, 32257,
 32323; LBSH 33478
Dichanthelium laxiflorum (Lam.) Gould, LB 32435
Dichanthelium ovale (Elliott) Gould & C.A. Clark subsp. *villosis-*
simum (Nash) Freckmann & Lelong, LB 32321
Dichanthelium sphaerocarpon (Elliott) Gould, SEWP 3020;
 LBSH 33491

- Digitaria ciliaris* (Retz) Koeler, LB 32297
 +**Echinochloa colonum* (L.) Link, MM 7980
 **Eleusine indica* (L.) Gaertn., MM 8067
Elymus virginicus L., LB 32203; MM 8227
Eragrostis hypnoides (Lam.) Britton, Sterns & Poggenb., GW
 2168
Leersia lenticularis Michx., GW 2162; LB 32204; SW 158
Leersia virginica Willd., LB 32208
Oplismenus hirtellus (L.) P. Beauv. subsp. *setarius* (Lam.) Mez ex
 Ekman, GW 2313; MM 8067; LBSH 33670
Panicum anceps Michx., LB 32300, 32318
Panicum dichotomiflorum Michx., MM 8076
Panicum gymnocarpon Elliott, LB 5595, 32428; MM 7925
Panicum rigidulum Nees, LBSH 33503
 **Paspalum dilatatum* Poir., LB 32409; MM 7974
 +*Paspalum conjugatum* P.J. Bergius, LB 32303
Paspalum laeve Michx. var. *laeve*, LB 32440
Paspalum notatum Flugge, LB 32273
Paspalum praecox Walter, LB 32302
Paspalum repens P.J. Bergius, LB 17502
Paspalum setaceum Michx., LB 32312
 **Paspalum urvillei* Steud., LBSH 33497
Phalaris angusta Nees ex Trin., LBSH 33498; MM 8235
Phalaris caroliniana Walter, LBSH 33482
 **Poa annua* L., LBSH 33294
Saccharum giganteum (Walter) Pers., SW 147
 **Sacciolepis indica* (L.) Chase, GW 2324
Setaria parviflora (Poir.) Kerguelen, LB 32209
Sphenopholis obtusata (Michx.) Scribn., LBSH 33500

Polygonaceae

- Polygonum densiflorum* Meisn., MM 8102
Polygonum hydropiperoides Michx., LB 32198, 29302; SEWP
 3032; MM 8008

Polypodiaceae

- Pleopeltis polypodioides* (L.) E.B. Andrews & Windham subsp.
michauxiana (Weatherby) E.B. Andrews & Windham,
 MM 8091

Primulaceae

- **Anagallis arvensis* L., LB 29322; SEWP 3036
Samolus valerandi L. subsp. *parviflorus* (Raf.) Hulten, LB 29313,
 32182; SEWP 3018; MM 7920

Ranunculaceae

- **Ranunculus muricatus* L., SEWP 3047

Rhamnaceae

- Berchemia scandens* (Hill) K. Koch, LB 29321, 32322; SEWP
 3021

Rosaceae

- Crataegus marshallii* Eggl., MM 8097
Crataegus opaca Hook. & Arn. ex Hook., LB 32282, 29284a,
 29307
 **Duchesnea indica* (Andr.) Focke, SEWP 3033; SW 154
Prunus serotina Ehrh. var. *serotina*, SEWP 3012; LBSH 33483
Rubus argutus Link, LB 32280, SEWP 3023, 3007; MM 7986

Rubiaceae

- Cephalanthus occidentalis* L., LB 32429; MM 7914

Diodia virginiana L., LB 32259; MM 7912

**Galium aparine* L., SEWP 3046

Galium tinctorium L., LBSH 33304, 33306

Houstonia pusilla Schoepf., LBSH 33283a

Mitchella repens L., LB 29310

Saururaceae

Saururus cernuus L., LB 29283a; MM 7913

Scrophulariaceae

Bacopa monnieri (L.) Penn., LB 32262; MM 8088

Gratiola virginiana L., LB 31938; SEWP 3002

Leucospora multifida (Michx.) Nutt., LB 29309

**Lindernia crustacea* (L.) F. von Muell., LB 32410; MM 7969, 8081; SW 157

Lindernia dubia (L.) Penn., LB 32288

Mecardonia acuminata (Walter) Small, MM 7972

Mecardonia procumbens (Mill.) Small, SEWP 3029; MM 7919, 7971

Micranthemum umbrosum (J.F. Gmel.) S.F. Blake, MM 8106

Mimulus alatus Aiton, MM 7932; SW 143

Scoparia dulcis L., LB 32296; MM 7897

Veronica peregrina L. var. *peregrina*, LBSH 33305a

Smilacaceae

Smilax bona-nox L., MM 7989; LB 32316

Smilax glauca Walter, MM 8096

Smilax rotundifolia L., SEWP 3008; LB 29297; MM 7985

Smilax smallii Morong, SEWP 3006

Solanaceae

Physalis cinerascens (Dunal) A.S. Hitchcock var. *cinerascens*, LB 29310a

Solanum carolinense L., LB 32256; MM 7910

Styracaceae

Styrax americana Lam., LB 32279

Symplocaceae

Symplocos tinctoria (L.) L. Her., LB 29282; LBSH 33300; SW 148

Thelypteridaceae

Thelypteris kunthii (Desv.) Morton, LB 29281a, 32185; MM 7991

Ulmaceae

Ulmus americana L., LB 32249; SEWP 3001; SW 150; LBSH 33676

Urticaceae

Boehmeria cylindrica (L.) Sw., LB 5595; MM 7894

Valerianaceae

Valerianella radiata (L.) DuRoi, LBSH 33286

Verbenaceae

Callicarpa americana L., LB 32281; MM 7898

Phyla nodiflora (L.) Greene, MM 7929

**Verbena brasiliensis* Vell., LBSH 33667

Verbena scabra Vahl, MM 7981

Verbena urticifolia L., LB 32183

Violaceae

Viola lanceolata L., LBSH 33296

Viola sororia Willd. var. *missouriensis* (Green) McKinney, SEWP 3009

Vitaceae

Ampelopsis arborea (L.) Koehne, LB 32271

Parthenocissus quinquefolia (L.) Planch., LB 32311; MM 8079

Vitis aestivalis Michx., SW 142; MM 8232

Vitis cinerea (Engelm.) Engelm. ex Millardet var. *cinerea*, LB 29299, 32418

Vitis rotundifolia Michx., LB 32263; MM 7893

Xyridaceae

Xyris ambigua Bey. ex Kunth, GW 2224; LB 32436

NOTES

Eupatorium semiserratum. This species is usually found in low moist areas which are frequent in this Unit. See Brown et al. (2007) for a discussion of this species in Texas.

Kyllinga pumila. *Kyllinga odorata* is the most common *Kyllinga* in the Houston area (Harris and surrounding counties) but not present in this Unit. *K. pumila* is rare in the Houston area but common along C.R. 2071 that extends through the center of the Unit.

Quercus velutina. This woody plant, as of now, has not been observed as a tree in the Houston area but grows as a small understory shade species. It is separated from the similar *Q. falcata* by the longer erect branched hairs on the abaxial surface of the shade leaves. On *Q. falcata* these trichomes are smaller and appressed [see the key in Smith (1994)].

Echinochloa colonum. Most books use *colona* as the specific epithet. See Ward (2005) for this change in orthography.

Paspalum conjugatum. Turner et al. (2003) mapped this species in Cameron County in extreme south Texas with 1 record from Hardin County in the Pineywoods region of east Texas. Diggs et al. (2006) consider the Hardin County specimen to be from a plant cultivated as a lawn grass. For now, the only east Texas collections of native plants are from Liberty County in the Trinity River National Refuge and the Loblolly Unit. The

plants were frequent along the southern edge west from the junction with C.R. 2071. Additional specimens at SBSC are from the various units of the National Wildlife Refuge complex in Brazoria County.

DISCUSSION

There are 88 families and 201 genera for the 305 taxa (271 native) on the Loblolly Unit list. Eight families, Poaceae (42 taxa), Cyperaceae (36 taxa), Asteraceae (31 taxa), Scrophulariaceae (11 taxa), Apiaceae (10 taxa), Lamiaceae (9 taxa), Fagaceae (8 taxa), and Fabaceae (7 taxa) account for 50 % of all taxa collected.

We compared the present list of species for Loblolly Unit with the species reported by Turner et al. (2003) in their *Atlas of the Vascular Plants of Texas* and found that 115 taxa, 37.7 % of the species on the Loblolly Unit list, are not reported in Liberty County in that source. This result is not surprising considering that, until recently, little focused collecting has been undertaken in the Big Thicket region.

While it is the case that our list is incomplete, as are all floras, we believe that we have collected probably 90+ % of the taxa. We estimate that the Loblolly Unit has about 281 to 290 native species/taxa. Of the 7 Units inventoried so far, the following taxa are reported only for the Loblolly Unit: *Hymenocallis liriosme*, *Cynosciadium digitatum*, *Rorippa sessiliflora*, *Commelina diffusa*, *Ipomoea lacunosa*, *Eleocharis engelmannii*, *Hydrolea uniflora*, *Hypoxis wrightii*, *Micromeria brownei*, *Ludwigia sphaerocarpa*, *Paspalum conjugatum*, *Ranunculus muricatus*, *Physalis cinerascens* var. *cinerascens*, and *Verbena urticifolia*. Only 14 taxa are new to this Unit. Thus 95% of the taxa in the Loblolly Unit had already been collected in other units of the Big Thicket National Preserve, which is to be expected since most of the other units possess Floodplain and/or Flatland Hardwood forest communities.

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